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Sequence Listing was accepted.

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Reviewer: Anne Corrigan

Timestamp: [year=2008; month=11; day=7; hr=10; min=17; sec=31; ms=149;]

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Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Keisha Douglas

Timestamp: [year=2008; month=10; day=10; hr=15; min=28; sec=11; ms=868;
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Application No: 10585077

Version No: 2.0

Input Set:

Output Set:

Started: 2008-10-07 15:13:22.356

Finished: 2008-10-07 15:13:25.344

Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 988 ms

Total Warnings: 13

Total Errors: 0

No. of SeqIDs Defined: 32

Actual SeqID Count: 32

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SEQUENCE LISTING

<110> CHRISTENSEN, GEIR
ANDERSSON, KRISTIN BREVIK

<120> NON-HUMAN MAMMAL COMPRISING A MODIFIED SERCA2 GENE AND
METHODS, CELLS, GENES, AND VECTORS THEREOF

<130> 3657-1037

<140> 10585077

<141> 2008-10-07

<150> PCT/NO04/000397

<151> 2004-12-22

<150> 60/533,740

<151> 2003-12-30

<160> 32

<170> PatentIn Ver. 3.3

<210> 1

<211> 801

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
nucleotide construct

<400> 1

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<213> Artificial Sequence

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nucleotide construct

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<223> Description of Artificial Sequence: Synthetic primer

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Gly Glu Glu Thr Val Thr Ala Phe Val Glu Pro Phe Val Ile Leu Leu
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Ile Leu Ile Ala Asn Ala Ile Val Gly Val Trp Gln Glu Arg Asn Ala
100 105 110

Glu Asn Ala Ile Glu Ala Leu Lys Glu Tyr Glu Pro Glu Met Gly Lys
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Ile Val Pro Gly Asp Ile Val Glu Val Ala Val Gly Asp Lys Val Pro
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Gln Ser Ile Leu Thr Gly Glu Ser Val Ser Val Ile Lys His Thr Asp
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 <212> PRT
 <213> Mus musculus

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65 70 75 80
Gly Glu Glu Thr Ile Thr Ala Phe Val Glu Pro Phe Val Ile Leu Leu
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Ile Leu Val Ala Asn Ala Ile Val Gly Val Trp Gln Glu Arg Asn Ala
100 105 110

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Thr	Gly	Thr	Leu	Thr	Thr													

SEQUENCE LISTING

<110> CHRISTENSEN, GEIR
ANDERSSON, KRISTIN BREVIK

<120> NON-HUMAN MAMMAL COMPRISING A MODIFIED SERCA2 GENE AND
METHODS, CELLS, GENES, AND VECTORS THEREOF

<130> 3657-1037

<140> 10585077

<141> 2008-10-07

<150> PCT/NO04/000397

<151> 2004-12-22

<150> 60/533,740

<151> 2003-12-30

<160> 32

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<210> 1

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
nucleotide construct

<400> 1

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nucleotide construct

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cgcgcttcta caaggcgctg gccgaagagg tgcgggagtt tcacgccacc aagatctgcg 420
gcacgctgtt gacgctgtta agcgggtcgc tgcagggtcg ctcggtgttc gaggccacac 480
gcgtcacctt aatatgcgaa gtggacctcg gaccgcgcg ccccgactgc atctgcgtgt 540
tcgaattcgc caatgacaag acgctgggcg gggtttgctc gacattgggt ggaaacattc 600
caggcctggg tggagaggct ttttgcttcc tcttgcaaaa ccacactgct cgacattggg 660
tggaacatt ccaggcctgg gtggagaggc ttttgcttcc ctcttgaaaa ccacactgct 720
cgatccggaa cccttaatat aacttcgtat aatgtatgct atacgaagt attaggtccc 780
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primer

<400> 5
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primer

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24

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<223> Description of Artificial Sequence: Synthetic
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24

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<223> Description of Artificial Sequence: Synthetic
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20

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23

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<211> 994

<212> PRT

<213> Mus musculus

<400> 14

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Gly Val Ser Glu Thr Thr Gly Leu Thr Pro Asp Gln Val Lys Arg His
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Leu Glu Lys Tyr Gly Pro Asn Glu Leu Pro Ala Glu Glu Gly Lys Ser
35 40 45

Leu Trp Glu Leu Val Val Glu Gln Phe Glu Asp Leu Leu Val Arg Ile
50 55 60

Leu Leu Leu Ala Ala Cys Ile Ser Phe Val Leu Ala Trp Phe Glu Glu
65 70 75 80

Gly Glu Glu Thr Val Thr Ala Phe Val Glu Pro Phe Val Ile Leu Leu
85 90 95

Ile Leu Ile Ala Asn Ala Ile Val Gly Val Trp Gln Glu Arg Asn Ala
100 105 110

Glu Asn Ala Ile Glu Ala Leu Lys Glu Tyr Glu Pro Glu Met Gly Lys
115 120 125

Val Tyr Arg Ala Asp Arg Lys Ser Val Gln Arg Ile Lys Ala Arg Asp
130 135 140

Ile Val Pro Gly Asp Ile Val Glu Val Ala Val Gly Asp Lys Val Pro
145 150 155 160

Ala Asp Ile Arg Ile Leu Ser Ile Lys Ser Thr Thr Leu Arg Val Asp
165 170 175

Gln Ser Ile Leu Thr Gly Glu Ser Val Ser Val Ile Lys His Thr Asp
180 185 190

Pro Val Pro Asp Pro Arg Ala Val Asn Gln Asp Lys Lys Asn Met Leu
195 200 205

Phe Ser Gly Thr Asn Ile Ala Ala Gly Lys Ala Val Gly Ile Val Ala
210 215 220

Thr Thr Gly Val Ser Thr Glu Ile Gly Lys Ile Arg Asp Gln Met Ala
225 230 235 240

Ala Thr Glu Gln Asp Lys Thr Pro Leu Gln Gln Lys Leu Asp Glu Phe

				245				250				255			
Gly	Glu	Gln	Leu	Ser	Lys	Val	Ile	Ser	Leu	Ile	Cys	Val	Ala	Val	Trp
260				265				270							
Leu	Ile	Asn	Ile	Gly	His	Phe	Asn	Asp	Pro	Val	His	Gly	Gly	Ser	Trp
275				280				285							
Phe	Arg	Gly	Ala	Ile	Tyr	Tyr	Phe	Lys	Ile	Ala	Val	Ala	Leu	Ala	Val
290				295				300							
Ala	Ala	Ile	Pro	Glu	Gly	Leu	Pro	Ala	Val	Ile	Thr	Thr	Cys	Leu	Ala
305				310				315				320			
Leu	Gly	Thr	Arg	Arg	Met	Ala	Lys	Lys	Asn	Ala	Ile	Val	Arg	Ser	Leu
325				330				335							
Pro	Ser	Val	Glu	Thr	Leu	Gly	Cys	Thr	Ser	Val	Ile	Cys	Ser	Asp	Lys
340				345				350							
Thr	Gly	Thr	Leu	Thr	Thr	Asn	Gln	Met	Ser	Val	Cys	Lys	Met	Phe	Ile
355				360				365							
Ile	Asp	Lys	Val	Asp	Gly	Asp	Val	Cys	Ser	Leu	Asn	Glu	Phe	Ser	Ile
370				375				380							
Thr	Gly	Ser	Thr	Tyr	Ala	Pro	Glu	Gly	Glu	Val	Leu	Lys	Asn	Asp	Lys
385				390				395				400			
Pro	Val	Arg	Ala	Gly	Gln	Tyr	Asp	Gly	Leu	Val	Glu	Leu	Ala	Thr	Ile
405				410				415							
Cys	Ala	Leu	Cys	Asn	Asp	Ser	Ser	Leu	Asp	Phe	Asn	Glu	Thr	Lys	Gly
420				425				430							
Val	Tyr	Glu	Lys	Val	Gly	Glu	Ala	Thr	Glu	Thr	Ala	Leu	Thr	Thr	Leu
435				440				445							
Val	Glu	Lys	Met	Asn	Val	Phe	Asn	Thr	Glu	Val	Arg	Ser	Leu	Ser	Lys
450				455				460							
Val	Glu	Arg	Ala	Asn	Ala	Cys	Asn	Ser	Val	Ile	Arg	Gln	Leu	Met	Lys
465				470				475				480			
Lys	Glu	Phe	Thr	Leu	Glu	Phe	Ser	Arg	Asp	Arg	Lys	Ser	Met	Ser	Val
485				490				495							
Tyr	Cys	Ser	Pro	Ala	Lys	Ser	Ser	Arg	Ala	Ala	Val	Gly	Asn	Lys	Met
500				505				510							
Phe	Val	Lys	Gly	Ala	Pro	Glu	Gly	Val	Ile	Asp	Arg	Cys	Asn	Tyr	Val
515				520				525							
Arg	Val	Gly	Thr	Thr	Arg	Val	Pro	Leu	Thr	Gly	Pro	Val	Lys	Glu	Lys
530				535				540							
Ile	Met	Ser	Val	Ile	Lys	Glu	Trp	Gly	Thr	Gly	Arg	Asp	Thr	Leu	Arg

545		550		555		560									
Cys	Leu	Ala	Leu	Ala	Thr	Arg	Asp	Thr	Pro	Pro	Lys	Arg	Glu	Glu	Met
				565					570					575	
Val	Leu	Asp	Asp	Ser	Ala	Lys	Phe	Met	Glu	Tyr	Glu	Met	Asp	Leu	Thr
				580				585					590		
Phe	Val	Gly	Val	Val	Gly	Met	Leu	Asp	Pro	Pro	Arg	Lys	Glu	Val	Thr
		595					600					605			
Gly	Ser	Ile	Gln	Leu	Cys	Arg	Asp	Ala	Gly	Ile	Arg	Val	Ile	Met	Ile
	610					615					620				
Thr	Gly	Asp	Asn	Lys	Gly	Thr	Ala	Ile	Ala	Ile	Cys	Arg	Arg	Ile	Gly
625					630					635					640
Ile	Phe	Ser	Glu	Asn	Glu	Glu	Val	Thr	Asp	Arg	Ala	Tyr	Thr	Gly	Arg
				645					650					655	
Glu	Phe	Asp	Asp	Leu	Pro	Leu	Ala	Glu	Gln	Arg	Glu	Ala	Cys	Arg	Arg
				660				665					670		
Ala	Cys	Cys	Phe	Ala	Arg	Val	Glu	Pro	Ser	His	Lys	Ser	Lys	Ile	Val
		675					680					685			
Glu	Tyr	Leu	Gln	Ser	Tyr	Asp	Glu	Ile	Thr	Ala	Met	Thr	Gly	Asp	Gly
	690					695					700				
Val	Asn	Asp	Ala	Pro	Ala	Leu	Lys	Lys	Ala	Glu	Ile	Gly	Ile	Ala	Met
705					710					715					720
Gly	Ser	Gly	Thr	Ala	Val	Ala	Lys	Thr	Ala	Ser	Glu	Met	Val	Leu	Ala
				725					730					735	
Asp	Asp	Asn	Phe	Ser	Thr	Ile	Val	Ala	Ala	Val	Glu	Glu	Gly	Arg	Ala
				740				745					750		
Ile	Tyr	Asn	Asn	Met	Lys	Gln	Phe	Ile	Arg	Tyr	Leu	Ile	Ser	Ser	Asn
	755					760						765			
Val	Gly	Glu	Val	Val	Cys	Ile	Phe	Leu	Thr	Ala	Ala	Leu	Gly	Leu	Pro
	770					775					780				
Glu	Ala	Leu	Ile	Pro	Val	Gln	Leu	Leu	Trp	Val	Asn	Leu	Val	Thr	Asp
785					790				795						800
Gly	Leu	Pro	Ala	Thr	Ala	Leu	Gly	Phe	Asn	Pro	Pro	Asp	Leu	Asp	Ile
				805					810					815	
Met	Asp	Arg	Pro	Pro	Arg	Ser	Pro	Lys	Glu	Pro	Leu	Ile	Ser	Gly	Trp
				820				825					830		
Leu	Phe	Phe	Arg	Tyr	Met	Ala	Ile	Gly	Gly	Tyr	Val	Gly	Ala	Ala	Thr
		835				840						845			
Val	Gly	Ala	Ala	Ala	Trp	Trp	Phe	Leu	Tyr	Ala	Glu	Asp	Gly	Pro	His

850	855	860
Val Ser Tyr His Gln Leu Thr His Phe Met Gln Cys Thr Glu His Asn		
865	870	875 880
Pro Glu Phe Asp Gly Leu Asp Cys Glu Val Phe Glu Ala Pro Glu Pro		
885	890	895
Met Thr Met Ala Leu Ser Val Leu Val Thr Ile Glu Met Cys Asn Ala		
900	905	910
Leu Asn Ser Leu Ser Glu Asn Gln Ser Leu Leu Arg Met Pro Pro Trp		
915	920	925
Val Asn Ile Trp Leu Leu Gly Ser Ile Cys Leu Ser Met Ser Leu His		
930	935	940
Phe Leu Ile Leu Tyr Val Asp Pro Leu Pro Met Ile Phe Lys Leu Arg		
945	950	955 960
Ala Leu Asp Phe Thr Gln Trp Leu Met Val Leu Lys Ile Ser Leu Pro		
965	970	975
Val Ile Gly Leu Asp Glu Leu Leu Lys Phe Ile Ala Arg Asn Tyr Leu		
980	985	990
Glu Gly		

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 <211> 998
 <212> PRT
 <213> Mus musculus

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Gly Val Asn Glu Ser Thr Gly Leu Ser Leu Glu Gln Val Lys Lys Leu
20 25 30
Lys Glu Arg Trp Gly Ser Asn Glu Leu Pro Ala Glu Glu Gly Lys Thr
35 40 45
Leu Leu Glu Leu Val Ile Glu Gln Phe Glu Asp Leu Leu Val Arg Ile
50 55 60
Leu Leu Leu Ala Ala Cys Ile Ser Phe Val Leu Ala Trp Phe Glu Glu
65 70 75 80
Gly Glu Glu Thr Ile Thr Ala Phe Val Glu Pro Phe Val Ile Leu Leu
85 90 95
Ile Leu Val Ala Asn Ala Ile Val Gly Val Trp Gln Glu Arg Asn Ala
100 105 110

Glu Asn Ala Ile Glu Ala Leu Lys Glu Tyr Glu Pro Glu Met Gly Lys			
115	120	125	
Val Tyr Arg Gln Asp Arg Lys Ser Val Gln Arg Ile Lys Ala Lys Asp			
130	135	140	
Ile Val Pro Gly Asp Ile Val Glu Ile Ala Val Gly Asp Lys Val Pro			
145	150	155	160
Ala Asp Ile Arg Leu Thr Ser Ile Lys Ser Thr Thr Leu Arg Val Asp			
	165	170	175
Gln Ser Ile Leu Thr Gly Glu Ser Val Ser Val Ile Lys His Thr Asp			
	180	185	190
Pro Val Pro Asp Pro Arg Ala Val Asn Gln Asp Lys Lys Asn Met Leu			
	195	200	205
Phe Ser Gly Thr Asn Ile Ala Ala Gly Lys Ala Met Gly Val Val Val			
210	215	220	
Ala Thr Gly Val Asn Thr Glu Ile Gly Lys Ile Arg Asp Glu Met Val			
225	230	235	240
Ala Thr Glu Gln Glu Arg Thr Pro Leu Gln Gln Lys Leu Asp Glu Phe			
	245	250	255
Gly Glu Gln Leu Ser Lys Val Ile Ser Leu Ile Cys Ile Ala Val Trp			
	260	265	270
Ile Ile Asn Ile Gly His Phe Asn Asp Pro Val His Gly Gly Ser Trp			
	275	280	285
Ile Arg Gly Ala Ile Tyr Tyr Phe Lys Ile Ala Val Ala Leu Ala Val			
290	295	300	
Ala Ala Ile Pro Glu Gly Leu Pro Ala Val Ile Thr Thr Cys Leu Ala			
305	310	315	320
Leu Gly Thr Arg Arg Met Ala Lys Lys Asn Ala Ile Val Arg Ser Leu			
	325	330	335
Pro Ser Val Glu Thr Leu Gly Cys Thr Ser Val Ile Cys Ser Asp Lys			
	340	345	350
Thr Gly Thr Leu Thr Thr			